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THE GENESEE FARMER.

SATURDAY, JUNE 25, 1836.

Brief Hints for Summer Work.

Corn fields should be kept entirely clear from weeds, from the time the corn is up, till the plants become so large as to cover the whole surface of the ground. It will be best for the crop, and cheapest for the farmer, to keep *ahead* of the weeds. In hoeing, it should be hilled as little as possible. To keep the soil loose at the surface, at the same time to preserve the surface level, and to avoid injuring the roots of corn, the *cultivator* only should be used, and not the plough. In heavy soils, the more finely and completely pulverized the surface is kept, the better.

Potatoes, as well as corn, should be hilled very little; the hills should be very broad and flat.

Wheat fields should have the rye, chess, and cockle, picked from them. Rye is most easily seen as soon as the heads appear; and cockle while it is in flower. Mustard is also most easily seen while in flower, and should then be extirpated.

Crops of mangel wurtzel and ruta baga, while young, must be kept entirely clear from weeds, or they will be greatly injured. Much more depends on this than is generally supposed.

In thinning these crops, where the plants have come up too thickly to stand, the distance from plant to plant should be about one foot, but varying according to the fertility of the soil, a rich soil requiring greater distance.

Crops of turneps in gardens may be effectually saved from the ravages of the fly, by confining a hen upon them that has young chickens. The chickens will suffer none to escape.

When garden plants are watered, it should always be done in the evening.

Cabbages, and other plants, may be safely transplanted in any weather or time of day, by immersing the roots in mud made from rich soil the moment they are taken from the ground, provided the ground in which they are set, is sufficiently moist at the time. It is best to take up as much of the soil with the roots as possible.

Fruit trees should have the turf and all weeds kept clear from the soil a few feet about them. In young trees, and especially those newly transplanted, this is of the greatest consequence; in older ones it is not so necessary, although very useful.

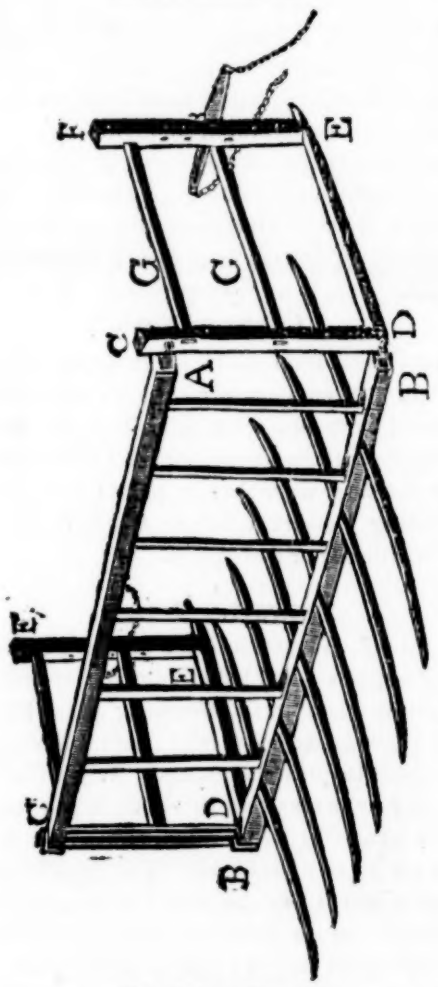
Trees heavily loaded, should have the fruit thinned upon the branches, or else it will be small and of inferior flavor. The quality of fruit of fine varieties, often depends greatly on this operation.

Branches of pear trees which are attacked by the fire blight, should be cut off immediately at some distance below the affected part (say two or three feet) and burned. Where the whole tree is affected, it must be cut up and burned.—This is the only way to prevent its spreading.

In order to have fruit of good quality, it should be permitted to become fully ripe. This is generally greatly neglected, especially in case of cherries, whose excellence is wholly dependant on thorough ripening. Some cherries are *generally* gathered when they are considered *ripe*, when if left on the tree they would nearly double their size and improve exceedingly in flavor.

Cattle and horses should have a constant supply of good water, particularly if working.

Salivation in horses, though not satisfactorily accounted for, appears to be caused in a great degree by juicy pasture: hence in most cases it is easily cured by a bating of hay or oats, or by turning the horse to dry pasture, such as one newly stocked down with timothy.



The Hay-Sweep.

The object of the Hay-Sweep is to collect and draw the hay from the winrow to the stack, or place of deposit.

It consists of a piece of scantling A A, 3 by 4 inches, and 10 feet long, united by seven upright bars of wood, 1 by 2 inches, and 3 feet long, to another piece B B, 4 by 5 inches and 10 feet long; through the latter six holes are made in a horizontal direction to receive the teeth, which are pieces of very strong wood, 1½ by 4 inches, and so long as to project two feet and a half on each side of the piece B B, and tapering on their under sides like the teeth of a horse-rake, so as not to run into the ground. At the ends of the pieces A A, B B, are attached two frames C D E F, termed gates, by strong hinges so made that the gates may turn round upon them through half a circle. These gates consist of two pieces of scantling, 3 inches square and 3 feet long, united by two bars of wood G G, each 1 by 2 inches, and 3 feet long, and a third D E, 3 inches square, tapering on the under side like the runner of a sled, and projecting a few inches beyond the upright piece F E. The whipple-trees are attached to the upright pieces F E, a little above the middle; they should admit of being raised or lowered in order to adjust the height exactly, which is readily determined by trial.

The mode of using this instrument is as follows:—A horse is attached to the whipple-tree at each end, and the length of which is to be regulated to the draught in such a way that the bottom of the gate may keep the teeth from running into the ground, and yet under the hay.—Not the least management or skill is further required; a small boy is placed on each horse, and passing on each side of the winrow, sweep it off and carry it to the stack. On arriving there, the horses are turned about, causing the gates to perform a semi-revolution, and drawing the instrument out from under the heap of hay, and they then proceed as before to bring up another load. The teeth on each side of the piece B B are thus alternately used. In order that the hay may be easily pitched, it is indispensible that the load be left at the stack so that the back of it may be pitched first. From three to five hundred pounds of hay are generally carried in each load.

As a labor-saving machine, where the distance of drawing is not great, this is fully equal if not superior to the revolving rake. Two horses and two boys only, are needed in using it. One will draw fast enough, in ordinary cases, to keep three pitchers and three stackers constantly at work. With this and a revolving rake, ten acres of hay may be cleared from the ground in half a day. It leaves the meadow as clean as is done by a common rake. The cost of making is not more than three or four dollars.

The drawing of it, at the head of this article, was taken from an instrument in the possession of Wm. R. Smith of Macedon, Wayne county, on whose farm its usefulness has been fully proved, and under whose direction it was first constructed.

Cure for Warts.

A hand as familiar to us as the one that holds this pen, was encumbered with a wart; and nitrate of silver, popularly called Lunar Caustic,—the Lapis infernalis of the old chemists,—was strongly recommended. A piece was moistened and rubbed on the wart. Its only effect however, was to blacken it; for notwithstanding its terrific name, no pain was produced by the ap-

plication; and though it was often repeated, yet after many days, no favorable change was effected. It was then given up in despair, and a silk thread was tightly applied round the base of the wart. The sensation could hardly be called painful even at the instant of applying it, and in a few minutes it was forgotten. In a day or two the wart was sensibly diminished, and in two or three more it was easily separated.

Summer Flowers.

(In a letter of the 15th instant.)

I shall confine my remarks principally to such plants as were not noticed in my former letters.

The Austrian Rose (*Rosa lutea var punicea*)is a variety of the single yellow rose; and for its brightness, is deservedly a great favorite. The inside of the petals is nearly scarlet—or rather intermediate between scarlet and crimson; to which the outside, a dull mixture of red, yellow and green, forms a fine contrast. It resembles no other rose that I have seen; and its value on this account will be at once understood by those who have made purchases of roses under fine names, and found them so nearly alike that none but a connoisseur could detect the difference. This kind of imposition ought to be exposed.

The Scotch Rose (*Rosa spinosissima*) runs into many varieties which bloom profusely, and this is the most that can be said in their favor. Many of these varieties come under fine names at full prices. I would advise not to purchase without inspecting them when in flower. Of eight varieties in my garden, not more than one half deserve a place—except on the brush-heap. Of all these, "Dido,"and "Aurora," or the "Princess Elizabeth," (the two last, too much alike for two names,) have finer colors and are semi-double.

Lilium dauricum, with erect flowers, seems intermediate between the Orange Lily (*L. bulbiferum*) and *L. philadelphicum*. According to its specific character, the stem ought to bear but *one* flower, though *two* have appeared; and in plants under garden culture, such anomalies may be expected. The petals from the middle outwards, have *stains* of a darker red. It is a handsome plant, and bears the sunshine in the open border.

Pæonia officinalis var. albicans is one of the finest varieties of this species. It is double, and of a flesh color when the flower first opens, but soon changes to a pure white. It is very distinct from the variety called the Double Rose which opens of a light crimson, and fades into a flesh color. Both are desirable plants.

Ænothera taraxicifolia is a lovely flower. It is three inches in diameter, of a pure white; and though it opens in the evening, it continues fresh through the following morning, and only reddens in the forenoon. It has no stem, but only a *scape* or simple peduncle which rises from the root, resembling in this particular as well as in the form of its leaves the Dandelion (*Leontodon taraxicum*,) from which it takes its specific name. I suppose it is an *annual*.

The Season.

The very heavy rains that fell the last of May, and the accompanying cold and cloudy weather, have had a bad effect on corn planted previous to that time, causing much of it to rot in the ground, or throw out weak and sickly looking shoots. The same cause operated to injure the newly sown spring grains, beating down the earth, and where the soil was naturally wet, actually drowning most of the young plants, or leaving them yellow and diseased. On all low lands, especially at the south and west, the damage done has been very extensive, most of them having been overflowed; and the high tides on the coast, occasioned by the long continued and violent east winds, rendered the floods without a parallel. Letters from Virginia, Maryland, Pennsylvania and New Jersey, represent the wheat crop as having suffered severely from the Hessian fly, and that the supply will be much diminished in consequence.

Ornamental Plants.

The following notices are compiled from the Gardener's Magazine, by J. C. Loudon:

Lupinus subcarnosus.

An extremely beautiful and apparently very distinct species. An annual raised in 1835 from seeds received from the late Mr. Drummond. Flowers numerous, in terminal pyramidal racemes. Corolla extremely richly colored.—Standard bent back, of a deep rich blue, with a quadrangular white or yellowish white spot in the centre.

Adesmia pendula.

A creeping perennial herb, from the sandy pastures in Buenos Ayres, and yet it appears to be quite hardy. Scapes from 7 inches to a foot high; racemes terminal, many-flowered, erect. Standard, orange yellow streaked with purple; wings, orange lily; keel, pale yellow. In the Chelsea Botanic Garden it has produced an abundance of flowers and ripe fruit in the open border.

Celosia coccinea.

An annual from China. It differs from C. cristala (the common cockscomb) chiefly in the crowded pyramidal arrangement of the inflorescence, the narrow leaves and the short stamens. It is also a far more hardy plant; and goes on producing glowing crimson tassel, in the open border, till winter destroys it.

Destroying Insects.

A friend of ours, informs us that a decoction of red peppers sprinkled or poured over melon or cucumber plants, will effectually guard them against the striped bugs; and another has applied quicklime to great advantage. When the bugs are very numerous, we think these applications would be useful; but our main dependence has been on our own vigilance. The hills ought to be examined at least twice a day, mornings and evenings, and we often visit them at noon when we apprehend danger; but the bugs are so very active when the weather is warm, that many escape; and we have sometimes used the watering pot to check their activity.

We are not believers in the doctrine of infinities as applied to insects. We know that the numbers of many kinds are very limited; and we annually reduce the striped bugs so much in a few days, that they occasion little trouble afterwards.

The large black bug which infests squashes and pumpkins, is a formidable insect, always checking the growth and often destroying the whole plants. It very rarely attempts to fly away, and may be caught without difficulty.—We never crush them, but decapitate them with the thumb nail. Their eggs are commonly laid on the under side of the leaves; and unless destroyed, the plant is soon *poisoned* by the new brood. The attention of a few minutes, once in two or three days, has been sufficient to restrain their depredations in our gardens.

Depredators—Insects.

Considered as individuals, the class of depredators to be found in the insect tribes, would be hardly worthy of notice; yet their numbers and activity render them formidable enemies to the farmer; and there can be no doubt, but that altogether these insignificant creatures cause him more loss than is occasioned by both beasts and birds. They seem to be sensible that they were born to feed, propagate, and die; and they run their course with an eagerness and activity, that with some, is truly astonishing. But a single step removed from the lower orders of creation, if they are not capable of indefinite production by the simple division of their bodies, as is the case with the polypi and others of that class, there are some of them, such as the aphis, which are capable by a single connection with the male of producing young for as many as eight or ten successive times, thus affording a rate of increase otherwise without a parallel. Almost every species of plant has its corresponding species of insect, which are thus furnished with an appropriate and grateful food. Owing to some causes at present not fully understood by us, insects are subject to great variations of number in their appearance. For instance, in some seasons, and perhaps for several successive ones, the grasshopper may be found in countless numbers in some sections of the country, in other years not one will be found. The locust too, furnishes another familiar example to the same effect.

Of the class of insect depredators on the labors of the farmer, the Hessian Fly, called by Dr. Mitchell *Tipula vaginalis tritici*, is one of the most formidable, as it rarely intermits its attacks on wheat, but annually destroys more or less of what is sown. It is needless to enter here into a description of the insect and its habits, as that has already been done in a late number of the Farmer; and those who would wish a more full description than is there given, may find one illustrated with engravings representing the insect and the egg deposited, in the "American Magazine and Review," for 1817, page 275. It has been generally imagined that this insect was introduced from Germany or England, by the Hessian troops sent over to this country during the revolutionary war, and this is not impossible, as the chrysalis of the insect is sometimes deposited in the higher joints of the stalks of grain, and hence could have been imported from abroad; yet it is stated by Dr. Akerly that no such insect is known to infest grain in Great Britain; and one only on the continent of Europe, which feeds upon wheat in the ear. Be its origin as it may, the insect first began to attract notice by its ravages on the east end of Long Island in 1786, and the crops of wheat were al-

most entirely destroyed in that, and in the two successive years. It has since spread generally over the country, though its favorite region seems to be the country between the secondary hills and the sea coast, including Long Island, most of New-Jersey, and part of Pennsylvania, Maryland, and Virginia, where the soils are in general inclining to sand. Dr. Akerly enumerates the following as the most likely means to arrest the ravages of the Tipula vaginalis. Sowing late,—sowing the bearded wheat, or any wheat producing a thick hard stem,—manuring high,—making use of a heavy roller after the chrysalis is formed in the autumn, or in the spring before it is hatched,—ploughing up the stubble, and thus burying the chrysalis in the earth; and lastly, burning the stubble, an operation which, where it can be performed, and is thoroughly done, must destroy the chrysalis most effectually.

Another new and serious enemy of wheat has lately made its appearance, and promises to exceed in destructiveness all that have preceded it. This insect is the wheat worm, *Vibrio tritici*, and is yearly extending its sphere of injury. Like the pea bug, or clover seed worm, the grain worm makes its lodgment in a kernel of wheat, the inside of which it devours. The insect which produces it, and the manner of its introduction into the kernel, does not yet appear to be fully understood. Mr. Bauer, the celebrated investigator and discoverer of the manner in which smut is propagated, has turned his attention to the grain worm, and he maintains that a multitude of eggs, or rather organized insects, are deposited in the infected kernel; that these by the process of inoculation or contact, while in the process of vegetation, are taken into the circulation of other growing kernels, and are thus taken to the ear where they establish themselves in the tender germens, and increasing in size convert the wheat kernel into a tenement for themselves. That Mr. Bauer's theory may be true of some kinds of the Vibrio, is very possible; but we have some doubt whether his description refers to the same insect which injures wheat in this country, and we incline to the opinion that the egg is deposited in the kernel soon after the ear is out of the sheath and in blossom, by a fly which propagates its race in this method. The well known puncture of the young pea, clover seed, plum and cherry, in a similar manner; the deposition of an egg, and the consequent production of a perfect insect, would seem to justify the belief that the wheat worm is produced in the same way. The wheat worm has hitherto confined its ravages principally to the valley of the Hudson river, and New England. It is occasionally found in Western New York, but no serious injury has as yet resulted from it. The first we ever saw was in the county of Onondaga twelve years since, when a miller placed in our hands a quantity of the infected kernels, perforated by the worm precisely as is the clover seed and the pea. No effectual remedy has as yet been discovered to prevent its ravages or spread. Lime promises the most, whether according to Mr. Bauer, the insect is already existing in the kernel, or whether the egg is placed there by a fly. In the first case soaking in lye and rolling in lime, might be beneficial; in the last, sowing the lime upon the young plants while the young ears were protruding from their sheath, and while covered with dew, might prevent the attack of the fly.

The Curculio, insect which injures fruit so extensively, is one which should not be suffered to carry on his depredations unmolested, or without efforts for his destruction. The curculio is a small fly or rather bug, which may in the spring of the year, immediately after plums and cherries have set, be easily caught and examined, or killed, by placing sheets under the trees, and then giving the bodies of the trees, or their principal branches, a sudden and violent jar. The curculio will drop down as if dead; but if left unmolested for a few minutes, will crawl or fly away to renew its attacks. The presence of this insect on the trees—and it infests peaches, apricots, and sometimes apples, as well as cherries and plums—may be readily known by examining the young fruit. The curculio is provided with a pair of cutting forceps like instruments at the extremity of its body; with this it makes an incision in the fruit, of a semicircular form, lifts up the the small lip thus made, and thrusts its egg into the opening. This soon hatches into a little white worm which penetrates deeper into the fruit, making it gummy and unsound when it does not wholly destroy it. The little white worm changes to a large grub, and when the fruit falls, makes its way into the earth where it spends the winter, undergoes its transformation in the spring, and in its new shape of fly, is ready by puncturing the young fruit, to perpetuate its race. To destroy the curculio, any method which will prevent the parent insect from depositing its egg in the fruit; or after it is deposited, prevent the grub from reaching its hiding place in the earth, will be effectual. To do the first, suddenly jarring the tree with considerable force, collecting the insects as they fall, and repeating the operation several times during the few days they are active, will be the most successful method. To accomplish the last, or prevent the worm from hiding in the earth, having the fruit garden so that the swine can be occasionally turned into it during the time the diseased fruit is falling, will be the best method, as they will thus be devoured with the defective plums or cherries. Where the trees are but few in number, and the presence of swine would be inadmissible, such fruit may be picked up by hand and thus the worm destroyed. It has been sometimes observed that trees standing near hard carriage paths, or close gravelled walks, have nearly escaped the curculio, while other fruit trees, not so situated, have had their fruit mostly destroyed. The inference drawn from these facts has been, that in such situations the worm was unable to penetrate the earth, and was of course destroyed by birds or fowls; and also that the fly was not a great traveler, but selected for the scene of its operations such trees as were nearest the spot whence it emerged from the earth.

The *Aphis*, or plant louse, is another tribe of insects which commit serious depredations on the farmer and orchardist. Nearly every plant has its peculiar species attached to it, which feed on its juices and thus destroy it, or materially retard its growth and perfection. The manner in which they preserve the race through the winter does not appear to be well understood. Last year I had a few ruta bagas set out for seed, and they became so infested with the plant louse that the seed was worth little or nothing, and when the garden was cleared, the dead turnep root and branch were removed together. This spring the garden was ploughed as usual, and planted. Happening to be on the spot of ground on the 8th of June, I observed a multitude of the young aphides, both male and female, apparently just awakened into existence, and extremely active. In what form they had passed the winter in the earth, as I think in this case they must, I cannot conjecture. All the varieties of the aphis may be destroyed by suitable applications, such as strong soap suds, a wash made by an infusion of tobacco, or when on the body of trees, by washing in lye, or by whitewash. This last is probably the best application for the *Aphis lanata*, or cottony aphis, which is spreading in this country, and bids fair to become a formidable scourge.

The common striped yellow, or cucumber bug, is a vexatious little depredator, and unless attended to in season, is most destructive to young pumpkins, melons, squashes or cucumbers. By personal examination and attention to these plants once or twice a day for a short time, and killing the bug, they may generally be preserved; but a better way is to cover the plants with boxes. A box made ten inches by twelve, five inches high, the top grooved so as to admit a pane of glass of that size, answers the double purpose of a hot house and preserver from insects. When no longer needed in the garden, the glass may be taken out and packed in a proper box, and the boxes secured in an out-house or garret for another year. If glass is not at hand, a simple box made as above to enclose the hill, will have a great effect in keeping off the bug, as he cannot crawl to the plant, and in flying rarely strikes upon the melon or cucumber in the enclosure of the box. G.

Revolving Horse Rake.

One of our subscribers in Vermont, says—"I got one of the Revolving Horse Rakes made, last season, according to the plate in your paper. It cost me too much, ($9,00,) but I was amply paid last year for the whole expense. It is a great improvement."

Stair Carpets should always have a slip of paper put under them, at and over the edge of every step, which is the part where they first wear out, in order to lessen the friction of the carpets against the boards beneath. The strips should be, within an inch or two, as long as the carpet is wide, and about four or five inches in breadth, so as to lie a little distance upon each step. This simple plan, so easy of execution, will we know, preserve a stair carpet half as long again as it would without the strips of paper.—*Pictou Bee*.

A gentleman having occasion to manure a certain portion of land lately, the carts bearing the manure passed through a field that appeared one entire bed of common thistles. It was observed that wherever the cart went the thistles were entirely destroyed. He then rolled the whole field with a cast iron roller in the latter end of May, and twice in the beginning of June. This field has been perfectly free from thistles ever since. The expense was only three shillings per acre. Fern and closefoot have been exterminated in the same way with most complete success.—*Scottish paper*.

COMMUNICATIONS.

Description of a Barn and Stable.

BY SAMUEL GRIGGS.

Mr. Tucker—Since I made mention of a plan of a barn, there has appeared in your paper a plan of one, which I think a more costly one than our common farmers would chose to build. The plan which I am about to exhibit, and recommend to those who need one of this size, is now standing on my farm on the turnpike road leading from Homer to Truxton, three miles and a half east of Homer village, and which may be seen by any gentleman traveling that road.

My barn is 60 feet long and 38 feet wide, the posts 16 feet high; it contains five bents 15 feet apart, with one row of girts round it. It is well studded from the sill to the girts, and also from the girts to the plate, and boarded horizontally, or lengthwise with the barn; the boards are jointed by beveling, so that each board covers the joint below and keeps out the rain and snow. The roof is somewhat different from that of common barns, and has kept its place extremely well. The purline posts stand as much inclining out from the perpendicular, as the pitch of the roof; there are two sets of rafters, the first extend from the main plate to the purline plate, and are framed into the lower side of the latter; the other extend from the purline plate to the ridge-pole, and are framed in at both ends. The advantages of this plan are, first, the purline plate is up out of the way; secondly, the rafters can be made much lighter and of shorter scantling, and thirdly, they are much more easily taken aloft and raised.

The floor, extending lengthwise with the barn, is 14 feet wide, which leaves 12 feet on each side for stables, bay and granary. On the east side of the floor, there is a stable to put up fifteen head of cattle, 45 feet in length, which leaves 15 feet at the end for the granary. The stable has stalls, to tie up my cattle, made in the following manner. Take two sticks of timber, as long as the stable, hew one six by five inches square, to place on the floor, the other five inches square, which must be placed about five feet high above the other, and fixed firmly, so that the cattle cannot move it. In the next place, make three slats for each animal, (or for each stall,) five or six inches wide, and from an inch and a half to two inches thick, frame them into the top and bottom timbers, one on each side of the animal's neck; the space between them should be from seven to ten inches wide, according to the size of the cattle; the third slat should be about half way between the cattle to keep them from wasting the fodder. The following is the method of fastening my cattle into these stalls, the most easy and expeditious way, at the same time to render them comfortable. The slat on the side of the animal's neck next to where I stand, (which is between the animal and the door,) must be hung on a pin in the mortise, so as to play freely backwards and forwards. Make a mortise through the upper timber, an inch and a half thick, and from eight to twelve inches long, (as the size of the animal may be,) make a latch of equal length with the mortise, four inches wide at one end and two inches at the other; hang this latch with a half inch pin at the narrow end, (the farther end from the animal,) and as near the upper side of the upper timber as may be; saw a notch into the under side of the latch, so as to take out half the width of it, two or three inches back from the end; let this notch come against the side of the swinging slat, so as to hold the animal fast when it is in; then put in a half inch pin near the upper edge of the latch, to serve as a handle, and to rest upon the upper side of the timber, and let it extend over the timber, so that you can raise it with your hand when you wish to unloose the animal. Dress off the upper edges of the lower timber with an adze, to make it easy for the cattle when they lie down. Common sized cows may stand within three feet of each other.

The following is my method of disposing of the dung when I clean the stable. I have no side windows, neither do I allow any thrown out at the door. I shall first describe the ground on which my barn stands. It is on a rise, descending each way from my barn and yard; the east side under my stable was rather a steep side-hill for several rods. I dug down perpendicularly under the east side of the floor, six feet and a half deep, the whole length of my barn, and scraped it far enough back to have room to turn round with a team and back under my stable to load the manure. I then built a wall under the whole length of the east side of my floor, and also at the ends of my stable, and along the remaining side I set a row of large posts with stone bases two feet high; these posts were framed with short tenons at the top, to admit of being taken out and others put in their place, when they fail. My stable floor is two inch plank, and behind the cattle scuttle holes are made ten or twelve feet apart, and twelve or fourteen inches square, each having a piece of plank to suit it, which may be taken up with a staple and ring, whenever the dung is to be thrown out. A good farmer need not be told that his cattle are more comfortable to be kept well littered.

Under my granary at the end of the stable, was another stable to turn in horses or cattle as the occasion required. On the other side of the floor, I had a stable 15 feet long, to hold five cattle, and a bay 45 feet long.

In addition to the above described dung-vat and under-ground shed, for it answers the purpose of both, the cattle standing near the wall and keeping dry and clean,—I had a shed running south from the south-west corner of my barn, 60 feet long, 48 feet of it open shed; this, with the under-ground shed, made 93 feet for loose cattle, and my 20 stalls in addition, would make it very comfortable for a large stock of cattle. I am led to these observations, by seeing many of my neighbors, without stable or sheds, with large herds of cattle, shivering about the streets and fields, with no other shelter on stormy nights than the pelting hail and snow that falls on them; which requires at least one third more fodder to keep them in good condition than with good stables and sheds.

In relation to the shape of the ground for a yard, I am aware that I shall differ from many, if not all my agricultural brethren. Many have recommended that the outer sides of the yard should be the highest, in order to retain all the urine and the rain which falls upon the yard; but my opinion was ever quite the reverse of this. I have built ten framed barns in Cortland and Cayuga counties for my own use, and have always selected a place for a yard as dry as possible. I always have avoided placing my barn on the upper side of the highway, or of the yard, where the wash of the manure would be wasted, or else would settle into the middle of the yard, and sink into the ground, or remain on the surface forming a slough of filth and a nuisance to my cattle, and also preventing the passage of teams to and from the barn. On the contrary, the barn I have been describing, was on a hand. some rise of ground, and delivered the wash of the manure on three different adjoining fields.

SAMUEL GRIGGS.

Griggsport, Feb. 2, 1835.

The Aphides; or, Plant Louse.

BY W. G.

Of all the numerous insect tribes which infest the plants cultivated by man, and prey upon his labors, there are perhaps none more deserving of notice from their natural habits, and the occasional injury they cause the farmer and gardener from their multitudes and voracity, than the common aphides or plant louse. That a little transparent creature, taking its color from the plant it feeds upon, generally without wings and with but very imperfect powers of locomotion, without a mouth which admits of its feeding on the membraneous or fibrous parts of plants, the prey of a thousand enemies, and destroyed by the slightest touch, should produce such destructive effects may well excite our curiosity, and provoke investigation.

In the garden the turnep and the cabbage, in the field the ruta baga and the hop, and in fruit garden or orchard the leaves and branches of the plum, and the terminating tender shoots of the apple, especially newly grafted thrifty ones, are the favorite objects of their attack, as furnishing an abundant supply of those juices, which, from the structure of the insect, must constitute its only food. But there is no plant or shrub cultivated for use or ornament, which has not its families of aphides preying upon it, and exhausting in a greater or less degree its vital juices. Trees and plants growing wild, are rarely infested to any considerable extent, and of course suffer much less than the cultivated ones. The forest will be comparatively free, while the orchard will produce its millions.

One of the most curious traits in the history of the plant louse, is the manner and rapidity of their reproduction. A single female fixes upon the leaf of a cabbage or turnep, or the succulent branch of a tree, and commences her operations. The number of young she produces at first is very great, and they are nearly or quite all females; these arrive speedily at maturity and again produce their myriads of females, and thus successively for nine generations; this insect having the peculiar power of reproduction for this number of times, without more than a single first connection with the male. In the production of the last brood, a large number of males are produced, and thus the continuation of the race, and the mischief they cause, is secured. The plant louse is particulary injurious when it at-

tacks cabbage or turneps intended for seed, as unless timely attended to, they become so numerous as to exhaust the necessary juices of the plant, and the seed shrinks and becomes worthless in consequence. The rapidity with which they propagate and increase, and their habits can be better observed on a plant of this kind than perhaps on any other, and their destructive effects more clearly traced.

One of the earliest and surest indications that the aphides have fixed on the leaves or succulent twigs of the plum or apple, is finding the common ant busily ascending and descending the trees. The connection existing between the ant and the plant louse is a singular one; and though Huber's theory, that the ants kept the aphides for cows through the winter, for the purpose of supplying them with food, was fanciful and visionary; yet that ants during the summer derive a large part of their own food, and supply for their young from these insects, does not admit of a doubt. I have for hours watched the motions of a colony of aphidæ on a large field thistle, and with a glass observed the methods used by the ants to procure the sweet food the plant louse had elaborated from the juices of the plant. Instead of a mouth, the aphides is furnished with a hair like tube, with which it perforates the tender leaves and stems where it resides, and thus readily obtains access to its proper food. While employed in extracting the sap from the plant with this tube, the body of the aphide is considerably raised from the leaf or shoot, and the ant running among or over them, seems instinctively to select those which possess the greatest quantity of the desired food; being those which have remained the longest unvisited, or in the language of Huber, unmilked. The ant then rapidly passes his antennæ or feelers over the plant louse, which by a slight motion and elevation of the hinder part of its body, seems instantly sensible of his presence. The ant then places its mouth to the short tubes which serve the purpose of discharging the liquid and sweet excrement of the insect, which he swallows as it flows, and when one is thus drained, he passes to another. Indeed, simply observing the difference in fullness between the ascending and descending ants, will be sufficient to show they have been well fed; the ascending ones resembling Pharoah's lean kine, and the descending ones filled almost to bursting.

Three or four years since I grafted some scions of the egg plum and green gage into trees of the common blue or horse plum varieties. They mostly grew very well, and for two years appeared flourishing, but the union never became complete—the wound made by cutting off the limbs, though covered with wax did not heal over readily, and a strip of dead wood and bark soon extended to the ground. Some few however lived, and still live, although from present indications, I do not promise myself much fruit from them. For two years past one of these largest grafted branches has been infested with the plant louse; the under side of the leaves, as their numbers increase, becoming thoroughly incrusted with them. That they were induced to fix on these branches in consequence of their sickly state I have no doubt; though after they had once taken their position, there were soon aphides enough to have seemingly exhausted the most flourishing tree. As this tree stood near where I frequently passed in going into the garden, I observed that some currant bushes, under the tree, and some mangel wurtzel plants that grew in a bed near it, seemed the chosen resort of a multitude of flies, &c., and I was induced to conclude their appearance was in some way connected with the aphides colony over them. Placing myself in a favorable position, so that the rays of the sun would render the minutest objects in the air visible, I at once discovered that a constant shower of ejected matter was falling from the aphides on the tree, much resembling fine mist drops, and like them when falling on dark cloth, perfectly discernible. In this case, it would seem that the colony of plant lice furnished a greater supply of food than was demanded by the ants that visited them, and these were not few, and in consequence the surplus was ejected in the manner I have described upon the plants and shrubs below, to the great gratification of the flies, wasps, and small bees that hovered around. The sweet did not seem to be agreeable to the honey bee, as in all my observations I never saw one of them engaged in gathering it.

Insignificant as they are in themselves, their numbers and voracity make them a formidable pest; and no method I have tried short of killing them at once, can be relied on for their extermination. The best way of treating them, when they are discovered on cabbage, ruta baga, &c., is to cut the leaf, or part of leaf on which they have fixed, at once from the stalk and crush them under the foot instanter. So with plants for seed, such as those mentioned above, by noticing them frequently about the time they are in blossom, the first colonies of the aphides are easily discovered, being always towards the extremities of the branches, and by clipping them off as fast as they appear for a short time, and crushing them at once, the insect is destroyed and the plant preserved. On the contrary if the insect is left undisturbed, it rapidly increases—spreads downwards taking entire possession until the whole plant is covered and perforated by at once by a million of suckers. In such a case it is not suprising, that the exhausted plant should be unable to reach its usual size, or mature its seed, or that the latter should be shrunk and defective. When the plant louse has fixed on the tender apple graft, or the plum tree leaves, they cannot be so readily destroyed by excision. Different measures must be resorted to for their extermination, and of these the most effectual and the least likely to be injurious, is to throw upon the infested branches with a syringe calculated for the purpose, (a boy's squirt-gun made to throw several fine streams will do,) some strong soap-suds. Where only the ends of grafts are colonized, and they are conveniently situated for the purpose, dipping them at once into the suds is generally sufficient for their destruction. A six-penny paper of tobacco steeped in a gallon of hot water will also make a decoction which applied to these insects, is sure to destroy them, and is perhaps in some cases preferable to the soap suds. Like most other evils that assail the farmer and gardener, the earlier they are attended to the more easily are they subdued; and a few colonies of the plant louse are much easier destroyed than they can be when they have increased to millions.

W. G.

Mr. Editor—Why is it that the opinion has so generally prevailed, and does now so generally prevail, that the life of a farmer is one of sheer necessity, rather than choice? Is it really a disgraceful calling, or one of which any refined or enlightened mind need be ashamed? If not, why this public caprice and foppish sneer? It is, we are sorry to say, a sentiment too prevalent among our people, that a person who is fit for nothing but manual labor, is just right for a farmer—just the character, and the best that is needed for that business. Now, methinks this the height of folly. It might have done for the dark ages—it may do for tyrants and aristocratical governments; but it is no sentiment to be cherished in an American's bosoms—no principle to govern their actions. Actuated by this impression the good father, when providing for his sons, the dear objects of his affection, is heard enquiring (perhaps of a phrenologist,) concerning their several capacities and abilities; and those whom he considers a little above mediocrity must, as a matter of course, be put to some learned profession, while those who are *minus*, are, as a matter of necessity, assigned to the farm, and are thought fully qualified for their vocation without the least science or refinement. This I call, *non equiparibus*. Often one cunning word from the child is sufficient to influence the parent to forego almost all other considerations to educate his favorite, and prepare him for some high sounding appellation on the professional stage. "This child," says he, "is endowed with too great mental powers,—nature has done too much for him to be disgraced with the name of farmer,—his companions now must be Homer and Horace instead of the hoe and sickle,—instead of following the plough he must ponder over the pages of ancient lore, and range the fields of Grecian fables." This is the philosophy of some of our paternal farmers, especially the more wealthy.—We have no objections to farmers giving their sons a *good* education; no. They ought so to do. But we do protest against the pervading mania—the general rush for professional employments. Things are not as they should be. A more consistent and reasonable course should be pursued by them. They injure their own interests and respectability. The farming interest requires men of talents and men of science, as well as the professional. We believe it to be as respectable, and look forward with fond hopes to the day when it may be as intelligent. It is the stamina of our government, the bulwark to our priceless institutions and the guardian of our liberty. Should it not then embrace the best talent in the land? Most certainly, we think, if any branch of business pursued by man requires intellectual strength and the enlightning influence of science, it is that of farming. "But," says one, "it don't need much science, or strength of mind, to follow the plough and hoe the corn." Thank you sir; this is not all that the farmer has to do. I will tell you greater things than these. He not only guides the plough, but virtually directs the affairs of the nation. He not only wields the hoe, but also the wand of

empire; and not only nourishes the corn, but keeps alive the germ of liberty. His influence is not confined to his own paternal lot; nor his power pent up in his own rustic dwelling. No: on him devolves the affairs of government—on his intelligence depends the perpetuity of our blood bought institutions. How important then that he be well informed and of a sound mind. We believe the times will soon change, and hope that the period is not far distant when the pursuit of agriculture will not only be sought as a lucrative employment, but as an honorable calling. Let it be sought with the same eagerness that some of the professions are. Let it be honored with men of talents—young men of promising parts. Let our legislative halls echo their voices and tell their abilities. Then our country will prosper—the bonds of society be strengthened, and life rendered doubly pleasing.

HAZARD.

Inquiry.

Can any of the correspondents of the Genesee Farmer inform me whether the patent for the revolving Hay-rake yet continues in force, or the time has expired? J.

On Stall Feeding.

Extract from a *Summary of Practical Farming*, a new English work, by C. HILDYARD, Esq.

Stall Feeding, which has now become so much more common throughout the country than formerly, has had the effect of making meat, in most years, as cheap in the spring as in the autumn, which it used not to be; consequently, stall-feeding, of late, has seldom turned out to be profitable, but often, as I have experienced, a serious loss. Meat cannot be laid on lean beasts in the stalls, to repay the expense of the food they consume; the only chance of making stall-feeding answer, is, to put in the beasts which prove to be only three parts fat at the latter end of autumn when grass will no longer improve them, but which will, in the stalls, increase in their weight, and improve in the quality of their meat; still, however, if the price of beef when these beasts become fat should be the same as when they were put into the stalls, the expenses will not be repaid. Meat must be a penny a pound more in the spring than it had been in the autumn, to repay the great expenses of stall feeding. It is carried on to a very large extent in Norfolk and Suffolk, and although from the great expense of oil-cake consumed, the farmers certainly must lose by every beast they feed, still they must continue the system on their large arable farms, for the purpose of turning their straw into good manure.

On beasts being tied up, white turneps will do for the first week or so; they keep beasts cool inside, but there is so very great a proportion of water in them that they are not of half so feeding a nature as Swedes. Those who have mangel wurtzel should keep it as a *corps de reserve* for spring, or severe frost, when the turneps are frozen, which are often given to beasts almost as hard and as cold as stone, and which, in such a state, cannot be good for them. The turneps should be cut—there are many machines for cutting or slicing. The machine I use, and like better than any I have seen, I have had five and twenty years; it was made at Banbury, turns very easily with a large fly wheel, and cuts the turneps very expeditiously into irregular pieces, which I prefer to slicing them. My method of feeding, when the beasts have been up a little time, and when on what I call full feeding, is thus:—first feed in the morning, half a bushel of cut turneps, and afterwards half a bushel of cut hay, with about a quart of meal in it. These feeds repeated at noon; in the afternoon a feed of turneps, and supped up at night with hay in the rack, and three oil-cakes in the manger. Should oil-cake be cheap, give more of it, and less of meal. The difference of the weekly cost of my way of feeding is as hereinafter stated.

Oil-cake at £12 per thousand in London, with the cost of about $2 per thousand getting home, will bring the cost of each cake to very nearly three pence half-penny. At £10 10s. to three pence.

The different weekly cost of feeding for each beast will be as under:

	s.	d.
10½ bushels of turneps,	3	6
1 3-4 cwt. of hay	5	10
	9	4
Turneps	3	5
1½ cwt. of cut and uncut hay	5	0
Half a bushel of meal	2	0
	10	6
	s.	d.
Half a bushel of linseed	3	6
Three gallons of meal	1	6
1 1-4 cwt. of cut and uncut hay	4	2
Turneps	3	6
	12	8
21 oil-cakes, at 3½d	6	0
Three gallons of meal	1	6
Cut and uncut hay	4	0
Turneps	3	6
	15	0

No food can be given to stall-feeding beasts that will fatten them so soon or so well as linseed oil-cake. It certainly is expensive as it appears to be, taking into consideration that it fattens quicker. The expense of it, compared with other stall-feeding food, is thus: when it costs the consumer at home £12 10s. per thousand, each cake said to be 3lbs., (but never are quite so much,) the stone of 14lbs. cost 1s. 3½d. Linseed at 56s. per quarter, 1s. 11d. Barley meal, when the price of good grinding barley is 26s. per quarter, the stone will be about 11d. The stone of bean meal, when beans are 32s. per quarter, the same. Some winters I have fed linseed instead of cake, and found it answer very well, although it added to the trouble of feeding. My mode of preparing it has been to break it in a little hand-mill, and steep it in cold water, in seven tubs, of a size, sufficient for one day's feed; in this way it will have been steeped seven days before it is mixed with cut hay and barley, or (that which is better,) bean meal. If steeped in hot water, two days will do; if steeped longer than three, it is apt to get a little sour, which I think not quite so well for the beasts. There are annually great importations of linseed from which I conclude that it can be imported at a less price than it can be produced here. It is grown pretty extensively in some parts of the kingdom; it is, however, to be regretted, that the cultivation of it cannot be more general, and prevent the necessity of such great importations; and thus circulate among the English farmers a large sum of money which now finds its way into the pockets of foreign farmers. I have not yet made such use of wheat in feeding as to enable me from experience to speak decidedly about it. I have hitherto used only my tailing wheat, ground with barley, and thought it answered very well; but I hear of numbers of beasts being now fed entirely with wheat; and, it is said, quite as well fed, and at a much less expense than with oil-cake at its present price. The way of preparing it for feeding is thus:—steeped thirty-six hours; then laid for five days on a brick floor, turning it over once a day; then laid on a boarded floor, about six inches thick; in two days it will be fit for use. One gallon and three quarters in the grown state, per day, for each beast, is said to be about equal to one bushel per week of dry wheat. Having lately seen one ox that was said to have been entirely fed on wheat, leaves no doubt in my mind that it must be a very nutritious food for beasts; I cannot, however, restrain some feelings of regret that this grain, intended only for the use of man, should be thus appropriated. Most likely, after two more harvests, the price of beans and barley will correspond, as it used to do, with the price of wheat, and then it will no longer be given as food for beasts. After all the great trouble and expense of stall feeding, this mortifying circumstance has frequently occurred; the beasts are sold in the London market at a ruinous price to the stall-feeder, at less than they would have made in any other market; the butchers knowing that the beasts, having been so much knocked about in Smithfield, could not be turned out of an overstocked market to come into the next, have frequently bought them at their own prices. It will not be thus when the Islington market is quite established.

I have given rather lengthened details of stall-feeding, from its having been for some years my hobby; but I confess rather an expensive one. No fox-hunter, however, can look with greater pleasure on his stable of fine hunters than I have at my stalls of fine beasts. I have tied up, several years, in the course of the winter, one hundred and fifty beasts; at this time (December, 1835,) I have only forty, chiefly well-bred Durhams, grazed in this country, and I never had beasts that improved faster. I have some fine Herefords, bought good meat at Hereford October Fair, but from the drift home (as is always the case,) they made little progress in feeding in the first three weeks of their being tied up. If beasts that are put up in warm places to stall feed have a great deal of long hair on their chines, top of their shoulders, and necks, it is a plan to cut it off, for when the beasts are thriving, they perspire much in their fore quarters, the long hair consequently gets matted together, and makes them very itchy and uncomfortable. Brushing also tends to their comfort and expeditious feeding.

Many beasts are subject to be blown after eating their green food: in such case let them be kept moving in a yard till the swelling goes down. If cutting to let the wind out be necessary, it should be done with a penknife on the left side, between the haunch-bone and the first rib.

It is not very probable that either grazing or stall-feeding will ever again prove a profitable concern. Great quantities of fat beasts and pigs will be imported from Ireland, even should the condition of the Irish poor improve so decidedly that the consumption of meat be increased two-fold; for Ireland would still be capable of producing a sufficient quantity for export to depreciate the price of stock in this country. Those will have the best chance of making a profit of grazing who can get beasts forward in winter, and who have rich grazing land to make them early ready for market, there being generally a fair demand for good beef in the months of July, August, and September. Times will not admit of giving exorbitant prices for fancy breeds; still, however, I have found that it well answers to give something more for beasts which evidently show some good breeding, as such will fatten much sooner than mongrels, and, therefore, at less expense; and, although there is not now the same difference as there used to be in the price of meat of various qualities, yet the finest is most readily sold at the top price of the market. There cannot be a question but that in the large breeds of cattle, the competition is between two breeds only—the Hereford and the Durham. I retain the same opinion as to the merits of these two excellent breeds, as I expressed more than twenty years ago. For grazing, I prefer Herefords—for stall-feeding, Durhams; having found that the latter increase faster in weight, and that if highly fed, they become more even carcasses of beef, and are less likely than many of the Herefords to prove patchy. It must, however, be admitted, that from their large frame they consume more food than Herefords. My idea of a good beast is, that it should have a straight and flat back, projecting hips, deep fore quarters, wide chine, sloping shoulders, good head, with prominent eyes, deep and bowed ribs, projecting bosom, good purse and flank, and not thin thighs.

Marl—its Nature and Effects.

The following extract from Professor Rogers' late Geological Report, will give our agricultural readers some more distinct idea of this remarkable, and recently much talked of manure, which abounds in Monmouth and other counties of New Jersey.

Marl or green mineral loses nothing of its potency by a long exposure, even of years to water and the atmosphere; in other words, it is not dissolved, or decomposed, or changed, by the ordinary atmosphere agents which react so powerfully upon many other minerals, and consequently we are to regard it as nearly tact, with it to effect its decomposition, by the vital power of their organs, and imbibe a portion of some of its constituents.

"Mr. Wooley manured a piece of land in the proportion of two hundred loads of good stable manure to the acre, applying upon an adjacent tract of the same soil his marl in the ratio of about twenty loads per acre. The crops, which were timothy and clover, were much the heaviest upon the section which had received the marl; and there was this additional fact greatly in favor of the fossil manure over the putrescent one, that the soil enriched by it, was entirely free of weeds, while the stable manure rendered its own crop very foul.

'This being an experiment, an extravagantly large dressing of manure was employed, but not exceeding the usual average application more than twenty loads of marl surpassed what was necessary for it.

'Experience has already shown that land once amply marled, retains its fertility with a little diminution for at least ten or twelve years, if care be had not to crop it too severely, while with all practicable precautions, the stable manure must be renewed at least three times in that interval to maintain in the soil a corresponding degree of vigor.

'The high and deservedly high name, which the Squancum Marl now boasts, was an inducement to me to subject it to chemical examination with special care and rigor. In external aspect it differs in no respect from many other marls of the State, and, chemically studied, I do not find it to depart very materially from several others in the proportion of its constituents, though it does most certainly possess an amount of potash in its composition not a little astonishing. Others, however, seem to have nearly as much.

'At the pits, which are very extensive, the marl is sold at the rate of 37 1-2 cents the load.

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It is transported by wagons to a distance, in some directions of twenty miles, and retailed, when hauled that far, at the rate of ten or twelve cents a bushel—being very profitably spread upon the soil in the small proportion of twenty-five or even twenty bushels to the acre. The fact that so small an amount of this marl is found efficacious to the soil, which after two or three dressings is permanently improved, and to a high pitch, by it, furnishes me one consideration for supposing that too generally the marl is spread with a prodigality surpassing all the necessities of land.

'A specimen of the marl from Thorp's lowest layer yielded me, after reiterated trials, uniformly about the following, for its composition:

Silica	43,40
Protoxide of iron	21,60
Alumina	6,40
Lime	10,40
Potash	14,48
Water	4,40
	99,68 in 100 grains.

In connexion with the foregoing extracts we add a few facts and experiments collected from the gentlemen whose names are used:—

Messrs. Tunis and John B. Forman say that they have used Squancum Marl, at the rate of 100 bushels to the acre, on very poor, worn out, cold clay land: the produce of the first year was 30 bushels of buckwheat to the acre—and the second year (it being sowed the year before with clover and herd) it cut a ton or more of good hay per acre, after which about one hundred bushels of marl per acre were scattered over the seed, and it now yields two tons of good hay per acre. They have also resuscitated mowing ground, after it had become too poor to produce a crop, by spreading 100 bushels of marl per acre over the sod, and the effect was to mellow the soil, and produce two tons of hay to the acre; the hay produced was of a superior quaitity, and free from weeds. One hundred bushels of marl to the acre of land, so poor as to have been considered useless, will raise a crop of from 12 to 20 bushels of rye per acre, and leave a fine sod of white clover. From three pints to two quarts of marl per hill of potatoes (the hills three feet apart on poor ground) has produced from 200 to 250 bushels per acre. They have found the marl a very superior manure for turneps, and garden truck in general. The effect of marling lands planted with apple trees, has an astonishing effect in improving the trees and fruit. They have known marl to be spread on bog meadow, and to cause double the quantity of superior hay to be produced. A neighbor of theirs, a few years since, sowed out of a basket, about 60 bushels of marl, on three or four acres of very poor land, and reaped about 100 bushels of buckwheat.

Dr. Forman states that two or three years ago he broke up a small piece of land, which forty years had been considered too poor to plough, and applied about 100 bushels of marl per acre; the land produced a good crop of rye and has cut about a ton of clover hay per acre every year since. He also states than Squancum Marl was first used about thirty years ago by Derick Chamberlain, under the name of *creek mud;* it caused the piece of land thus manured, to produce double the quantity it had done before, and the effect on the land is still visible.—*Franklin Mercury.*

Beet Root Sugar.

A friend who is conversant with the cultivation of the Beet Root Sugar in France, has furnished us with the following interesting outlines. He has promised us more details hereafter. He says—

"Of the seven varieties of the Beet root usually cultivated, the *White* (Beta alba) is preferred by the experienced manufacturer, as it is found to contain a larger proportion of the saccharine matter to a given weight of the root, than any of the others. Though this plant will grow in almost any soil, it prefers a deep loose loam, in which its long and tender fibres may penetrate and the root develope itself without obstacle. It follows that a stiff, compact soil should be avoided, and still more a low damp situation, where the root becomes so impregnated with aqueous parts, that the difficulty and expense of separating these would in most cases be far from remunerated by the produce. In high ground the beet succeeds well, if the season is not too dry and in these situations (ceteris paribus) is more productive in sugar than elsewhere.

As to climate, a northern latitude is found to suit this plant best, the north of Germany, Prussia, and Silesia, the countries where this new application of it was first made, are more favorable to it than even the northern department of France, as experiment has amply established, and the trial of it in the south of France has constantly failed, tho' it was at first supposed that this root, favored by the genial sun of that climate, would, as well as its other productions, contain a larger proportion of the saccharine principle than those of colder countries. This hypothesis founded on a mistaken analogy supposed to exist between plants growing above and below the soil, proved as might have been expected, completely fallacious, and the culture there is now given up.

The result of divers authentic accounts of the culture and manufacture of the beet root sugar, and various circumstances of soil and management, and where all the elements for establishing a true estimate are united, clearly demonstrate,

1st, That other things equal, the *largest* manufactories are the most profitable.

2nd, That the brown Sugar made at a *small* establishment, will not, however, cost the manufacturers more than six and a half cents per pound, and that the same sugar made at a manufactory four times as large, will not cost over five cents and a fraction. That independent of the product in sugar, the residue of the beet or pulp, the saccharine extracted, is still valuable as food for cattle and amounts to a fourth of the weight of the beets employed. The fact first to be ascertained is at what price the farmar can supply the root cut in this country, when cultivated on a large scale.

The expense of manufacture is in most of its items higher in France than it would be here, labor excepted; *wood*, which is a very important one, costs *there* from four to five dollars a cord, *here* we could get it of the quality we should require for less than half this cost; and water power for working and rasping is so difficult to be had in most parts of France, that there are very few of the manufacturers who are able to employ any other than manual and animal labor, at a greatly increased expense. The cost of the combustible materials in France is equal to the whole amount of wages paid to the hands employed, including the operation of refining the sugar. All things considered, I repeat that, I am persuaded this application of the beet root is destined at no very distant period, to offer a new and productive source of riches to our industrious and ingenious New Englanders, and amongst its other benefits, will render us independent of *slave labor* for one of the most important articles of consumption.

The idea of producing sugar in France in competition with the colonies, was for years treated as visionary and absurd, and by none more than by the West India Planters themselves, who are compelled to call on the Government for a protecting tax on the indigenous sugar."—*Northampton Cour.*

From the Tennessee Farmer.

Breeding of Stock.

The following Rules are applicable to the rearing of every species of stock:

First.—Breed from the best stock you can procure. There is little or no difference in the expense of raising a fine high blooded horse, worth from $150 to $300, and an ill-made, weak and worthless animal, which, perhaps, may be sold from $30 to $60.

Secondly.—Let your stock be well fed, well sheltered, and in every respect well attended to—no half-starved animal, exposed to every inclemency of the weather, will attain to perfection, and many will die under such treatment. It is, besides, one of the thousand instances of false economy; but in truth, of shameful waste, thus to treat any animal; because, it is not only attended with a diminution of its value, far exceeding the expense saved, but it is wanton waste of food.

Thirdly.—Let your animals be as regularly supplied with salt as with food.

Fourthly.—Let your food be properly and economically prepared.

Fifthly.—Let the best practicable plan be adopted for saving the manure produced by the litter, dung and urine of the stock. This will be judiciously applied, be worth half feed, and sometimes more than all of it.

As to the kind of stock, whether horses, hogs, cattle or sheep, which it would be most profitable to raise—this will depend on the capital and description of each man's farm. In the rearing of stock, it should always be remembered, that care, punctuality in feeding, and strict observance, not of parsimony or stinginess, but of true economy, which, to a great extent, consists in liberality, are indispensably necessary to a profitable result. By the aid of these, many animals will, by their manure alone, pay for their feed, and all will, by the same means, make full remuneration for a large portion of their sustenance.

Dr. Tier of Germany has invented a process, by means of which beet root can be transformed into solid white sugar, in the space of eight hours. The produce in October and December last, under his process including the molasses, was from 9 to 10 per cent.

The Lady-Bug and the Ant.

The Lady-Bug sat in the rose's heart,
And smiled with pride and scorn,
As she saw a plain drest Ant go by,
With a heavy grain of corn.—
So she drew the curtains of damask round,
And adjusted her silken vest,
Making her glass of a drop of dew
That lay in the rose's breast.

Then she laugh'd so loud that the Ant look'd up,
And seeing her haughty face,
Took no more notice, but travell'd on
At the same industrious pace:—
But a sudden blast of Autumn came,
And rudely swept the ground,
And down the rose with the Lady-Bug bent,
And scatter'd its leaves around.

Then the houseless Lady was much amaz'd,
For she knew not where to go,
And hoarse November's early blast
Had brought with it rain and snow:
Her wings were chill'd and her feet were cold,
And she wish'd for the Ant's warm cell,
And what she did in the wintry storm,
I'm sure I cannot tell.

But the careful Ant was in her nest,
With her little ones by her side,
She taught them all, like herself to toil,
Nor mind the sneer of pride:—
And I thought as I sat at the close of day,
Eating my bread and milk,
It was wiser to work and improve my time,
Than be idle and dress in silk. L. H. S.

Rural Ornament has a good Moral tendancy.

"Along the bank of a finished canal, I saw the other day, a settlement which at the distance of a furlong showed the origin of its tenants. Extemporaneous huts, barrel chimneys, windows without glass, floors without boards, and a dungeon at the portal; these afforded the diagnosis of a *hovel*. Here was no decoration; and I argue concerning this settlement, that there are no intellectual pleasures, no taste, no gentleness, no fireside happiness.

Let me change the scene. I know a family of English people, no richer than those just noticed, who lived in a dwelling no larger than one of these—but how different. I see it in memory, its whitened palings and beaten walk to the door, its tight sides and close roof; and especially its edge of summer flowers around a plot of the clearest grass, and its roses and woodbine creeping over every window. They were poor, but they were tidy. More than this; they were fond of natural beauty, and fond of home, and therefore always aiming to make home lovely.

Every reader has many times seen the same thing, and some have already learned the connexion between simple decoration and domestic virtue and peace. Why does an English cot strike an American with surprise? Why does he look, as at a strange thing, upon the French peasantry taking their evening repast beneath their trees and vines? Because we Americans are so particularly *practical*, and so possessed of the demon of Trade, that nothing is valuable which cannot be sold. Value is becoming equivalent to vendability; valuable means saleable; worth means money. If a flower, or a hedgerow, or a cascade, or a bust, or a prospect, add to the price under the hammer, these things are valuable, and are straitway inserted in the lithographic view of the autioneer. They are useful. Usefulness is that quality of things whereby they bring money. Mrs Trollope exaggerated in saying that no one could ever hear two Americans talk five minutes without the word '*Dollar*.' So Bonaparte exaggerated when he called the British a 'nation of shop-keepers.' Be it so. Caricature often tell truth. Even the hideous concave mirror, though it exaggerate ever so much, shows me some grand blemishes of my face. I have tried the experiment, in walking the crowded streets of our cities, to catch the predominant words of the passers-by. The catalogue is limited, and consist of such as these—'Ten-per-cent'—'Doing a good business'—'Operations in property'—'exchange'—'stock'—'thousand dollars'—'credit'—'profits'—'fortune,' &c.

If a man is so practical that he will not wash his face without 'value received,' I entertain no hopes of bringing him over.

The ways of adorning a house by rural appliances are various, and so well known as scarcely to need enumeration. They may be adapted to the lowliest habitation of civilized man, no less than to the villa or the chateau. Nothing but love for domestic beauty, and ordinary tact, are required, to rear a thousand tasteful abodes along our highways. And if but one provident householder will begin, we shall find that humble as its habitation may be, he will soon be imitated by his neighbors. *Fashion* itself, the cause of so many follies, may be subsidized in aid of virtuous enjoyment. Let some honest dweller in the country, make the trial by holding up before his mind rural decoration as a distinct object. Let him secure to himself a house and garden where he is willing to spend his life. Let him, as his means allow, have it tight and finished, and by all means duly closed. This is the frame work; after this ensue the details. Let him learn the economy of a little timely paint and of a fence or hedge which will withstand the assaults of winds and beasts. From day to day, as he may be able to snatch a moment for breathing the fresh air, let him remove unsightly objects and make an entrance upon positive ornament. How easy it is to set out clumps or rows of trees, for shade or fruits, flowering shrubs or evergreen hedges. How agreeable to the wife and little ones to be called out to join in dropping the cheap flower seeds, or training the luxuriant vine.

To mechanics and other working men this subject is peculiarly interesting. The confinement of their daily toils treates the want of just such relaxation and refreshment as have been indicated. And let it be remembered, that in our country, even the poor man should cultivate his taste, because every poor man looks forward to the time when he shall be rich. Let him educate his faculties, that his ignorance may not some day disgrace his wealth. It is common to sneer at the mechanic, and consider the youth who becomes an apprentice as degraded. This is very short-sighted. I know no class of society whom success makes so truly independent, or who in the decline of life have so much leisure as MECHANICS. Compare them in this respect with professional men. The lawyer or the physician, however wealthy he may become, finds his labors increased; the more riches, the more toil. Unless he relinquishes his business altogether, he must do the work himself. He cannot send his foreman to set a leg or plead a cause; nor can he like the rich mechanic, sit in his arbor or his garden, and know that all his great concerns are well conducted by proxy. Mechanics should look to this, and from the time when they first enter a little habitation of their own, should cultivate the delights of *rural ornaments*."

STUBBORNNESS CURED.—We heard of an experiment the other day, which has the merit of novelty, at least. A man with a loaded team and pair of horses, arrived at the foot of a small hill on the out-skirts of the town. They refused to draw up the load and all his entreaties and applications of the whip seemed only to confirm their stubbornness. The sun had set and darkness coming on apace, he bethought of extricating himself from his trouble. So he got them to the road side and driving down a post, tied them firmly, and retired to his home. In the morning he returned and found them still remaining, no doubt with sharpened appetites. He merely spoke to them and the load was taken up the hill without any farther difficulty, showing that *hunger* will subdue, what the whip cannot, an ugly, *perverse temper!—Northampton Courier.*

The *Meadville* Courier says that Mrs. Simpson Hamilton, of that village, made more silk last season than will make her dress. The example of this lady is worthy of emulation, and we hope it will inspire a correspondent feeling of patriotism in her country-women; for certain we are, they cannot be engaged in a more holy cause, or one whose benefits would be more productive of public and individual good.

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Greece, *Monroe* co. N. Y. Sept. 13, 1835.